

Work Order ID 78685

January-12-12 10:56:13 AM

78685

Page 1

Item ID: D2841-042

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step Assembly RH, 206 Float

Start Date: 12/01/2012 Start Qty: 3.00

3

Cust Item ID:

Required Date: 10/02/2012 Req'd Qty: 3.00

3

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/01/12 Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2841

Rev B

100

0.00

100

Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2841-2 using D2622 extrusion as per Dwg D2842
2-Drill extrusion per drawing D2842 using Jig DT 8265
3-Deburr and bevel ends for welding

Handwritten: 12.02.24 3 0
12.02.17

110

QC5- Inspect part completeness to step on W/O

0.00

110

QC

Memo

0.00

Quality Control

Handwritten: 12.02.24 (3)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

January-12-12 10:56:13 AM

Page 2

Quality Control

3 ~~0~~

3 ~~0~~ BE 12/02/27

x3
R4

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Work Order ID 78685

78685

Page 3

January-12-12 10:56:13 AM

Item ID: D2841-042 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Assembly RH, 206 Float
 Start Date: 12/01/2012 Start Qty: 3.00 ***3*** Cust Item ID:
 Required Date: 10/02/2012 Req'd Qty: 3.00 ***3*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				3	0		
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							
170 *170* Large Fab Large Fab	Large Fab Memo 1-Inspect for foreign object per QSI 024 2-Weld Remainig end cap as per Dwg D2841 using Jig DT 8267 followed by DT 8268 A/R AL ROD Batch: 119785 3- grind end cap weld flush as per dwg D2841	0.00 0.00				3	0		

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

7868.5

January-12-12 10:56:13 AM

N900040100

Setup Start ***NS1***

Stop *NS2*

3

3

Reference:

Run Start *NR1*

Stop *NR2*

**Insp.
Stamp**

180

Q40

0.00

QC

Memo

Pro \rightarrow

190

0.00

QC

Memo

x3
Pr

195

Chemical Conversion Coat per QSI005 4.1

0.00

HandFinish

Memo

Hand Finishing

3x4 m- 12/03/05

Dart Aerospace Ltd

W/O: 78685		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
12/03/05	#180	change to QC10 inspection	<i>[Signature]</i>	12/03/05		<i>[Signature]</i> 12/03/05	<i>[Signature]</i> 12/03/05

Part No: D2841-042 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: \		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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78685

January-12-12 10:56:13 AM

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Step Assembly RH, 206 Float

Start Date: 12/01/2012 **Start Qty:** 3.00

3

Cust Item ID:

Required Date: 10/02/2012 **Req'd Qty:** 3.00

3

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____

Date:

Tooling:

Date:

Stop *NR2*

QC: _____

Date:

SPC (Y/N):

Date:

**Insp.
Stamp**

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

200

0.00

Powdercoat

Memo

START TIME: 8h10
OVEN TEMPERATURE: 320 °F
FINISH TIME: 8h40

M 120 222

210

QC3- Inspect Part Finish

0.00

210

QC

Memo

0.00

Quality Control

220

0.00

220

HandFinishing

0.00

HandFinish

Memo

1-Install inserts as per Dwg D2842
2-Wing Walk as per Dwg D2842 and QSI 005 4.1
Batch: *12/1/25*

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 78685

78685

Page 6

January-12-12 10:56:13 AM

Item ID: D2841-042 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Assembly RH, 206 Float
 Start Date: 12/01/2012 Start Qty: 3.00 ***3*** Cust Item ID:
 Required Date: 10/02/2012 Req'd Qty: 3.00 ***3*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	QC5- Inspect part completeness to step on W/O	0.00							
230									
QC	Memo	0.00							
Quality Control	INSPECT WORK/WING WALK								
240	Identify as per dwg & Stock Location: _____	0.00							
240									
Packaging	Memo	0.00							
Packaging									
250	QC21- Final Inspection - Work Order Release	0.00							
250									
QC	Memo	0.00							
Quality Control									

5/12/07

73

B7

12/03/07 (3)

MLJ 12/03/07

MF
12-03-07

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

January-12-12 10:56:17 AM

Page 1

Work Order ID: 78685

78685

Parent Item: D2841-042

D2841-042

Parent Item Name: Step Assembly RH, 206 Float

Start Date: 12/01/2012

Required Date: 10/02/2012

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP Rev:D As Per Ecn 766 06-01-06 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960C10L	NAS1149C0332	Purchased	No			100	Each	0.0000	4	12	120	648	

***AN960C10I ***

washer

D2622-120C

Manufactured No

120

Each

54.4700

1

3

D2622-120C

Step Extrusion

**

**

Location

Loc Qty

Loc Code

HALL

16.47

46910

2

64409

6

66970

7.7

68293

0.35

72131

0.42

WA013

38

75781

38

D2734

Manufactured No

120

Each

132.0000

2

6

D2734

Step End Plate

**

Location

Loc Qty

Loc Code

WA

132

76985

132

3+3

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

January-12-12 10:56:17 AM

Work Order ID: 78685

78685

Parent Item: D2841-042

D2841-042

Parent Item Name: Step Assembly RH, 206 Float

Start Date: 12/01/2012

Required Date: 10/02/2012

Start Qty: 3.00

Required Qty: 3.00

D3464-1 Manufactured No

120 Each 26.0000 1 3

D3464-1

Float Step Mounting Plate

**

12.02.25

Location

Loc Qty

Loc Code

WA003

26

37348

8

44607

18

3

D3464-3 Manufactured No

120 Each 21.0000 1 3

D3464-3

Float Step Mounting Plate

**

12.02.25

Location

Loc Qty

Loc Code

WA017

21

37349

6

37791

15

3

D3464-5 Manufactured No

120 Each 35.0000 1 3

D3464-5

Float Step Mounting Plate

**

12.02.25

Location

Loc Qty

Loc Code

WA003

35

54069

35

3

D3464-7 Manufactured No

220 Each 19.0000 1 3

D3464-7

Float Step Mounting Plate

**

12.02.25

Location

Loc Qty

Loc Code

WA004

19

44608

19

3

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

January-12-12 10:56:17 AM

Work Order ID: 78685

78685

Parent Item: D2841-042

D2841-042

Parent Item Name: Step Assembly RH, 206 Float

Start Date: 12/01/2012

Required Date: 10/02/2012

Start Qty: 3.00

Required Qty: 3.00

MS27039C1-07

Purchased

No

220

Each

33.0000

4

12

MS27039C1-07

screw

**

BR 12-3-7

Location

Loc Qty

Loc Code

ST293

33

117423

8

118686✓

25

12

NAS1329C3KB130

Purchased

No

220

Each

82.0000

4

12

NAS1329C3KB130

insert

**

BR 12-3-7

Location

Loc Qty

Loc Code

ST276

82

117679

7

118984✓

75

12

NAS1515H3L

Purchased

No

220

Each

171.0000

4

12

***NAS1515H3I ***

WASHER

**

BR 12-3-7

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

131

118686

3

119438✓

28

120072✓

100

12

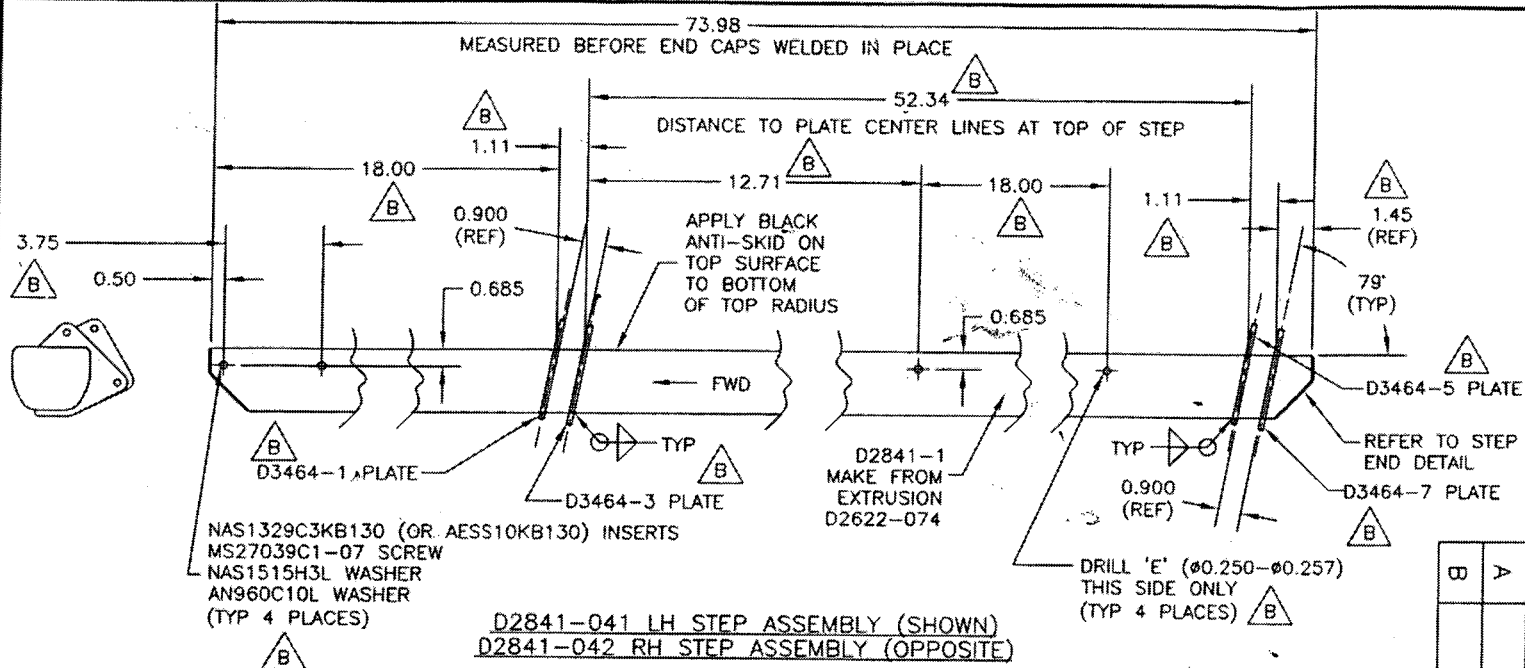
Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

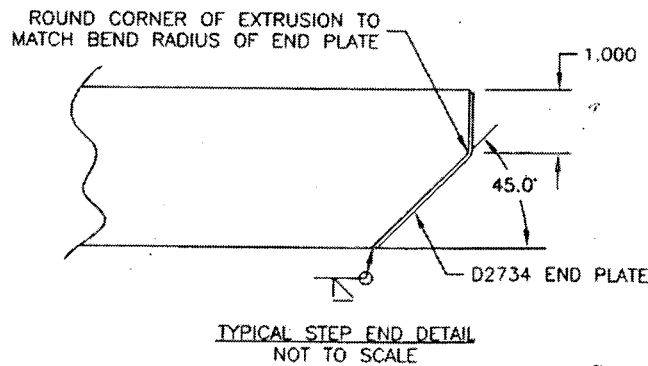
D2841-041/-042 STEP ASSEMBLY PARTS LIST

QTY	QTY	PART NUMBER	DESCRIPTION
041	042		
X		D2841-041	LH STEP ASSEMBLY
	X	D2841-042	RH STEP ASSEMBLY
1	1	D2622-074	EXTRUSION
1	1	D3464-1	PLATE
1	1	D3464-3	PLATE
1	1	D3464-5	PLATE
1	1	D3464-7	PLATE
2	2	D2734	END PLATE
4	4	NAS1329C3K6130 (OR AE6510KB130)	INSERT
4	4	MS27039C1-07	SCREW
4	4	NAS1515H3L	WASHER
4	4	AN960C10L	WASHER



NOTE: ALL WELDS SHALL
BE 100% VISUALLY
INSPECTED BY A QUALIFIED
INSPECTOR PER DART
QSI 004

D2841-041/-042 STEP ASSEMBLY

- 1) MAKE FROM EXTRUSION D2622
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



SHOP
RETURN
ENGINEER
UNCONTROLLED
SUBJECT TO AMENDMENT
WITHOUT
WORK ORDER
NO. 78605
MCS

DECISION KE		DRAWING BY #H		DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED 	APPROVED 	DRAWING NO. D2841		REV. B SHEET 1 OF 1	
DATE 05.09.21		TITLE 206B FLOAT STEP ASSEMBLY		SCALE NTS	
A	98.10.14	NEW ISSUE			
B	05.09.21	RE-DESIGN, ADD D2843-1/-3/-5/-7			

12/01/12

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

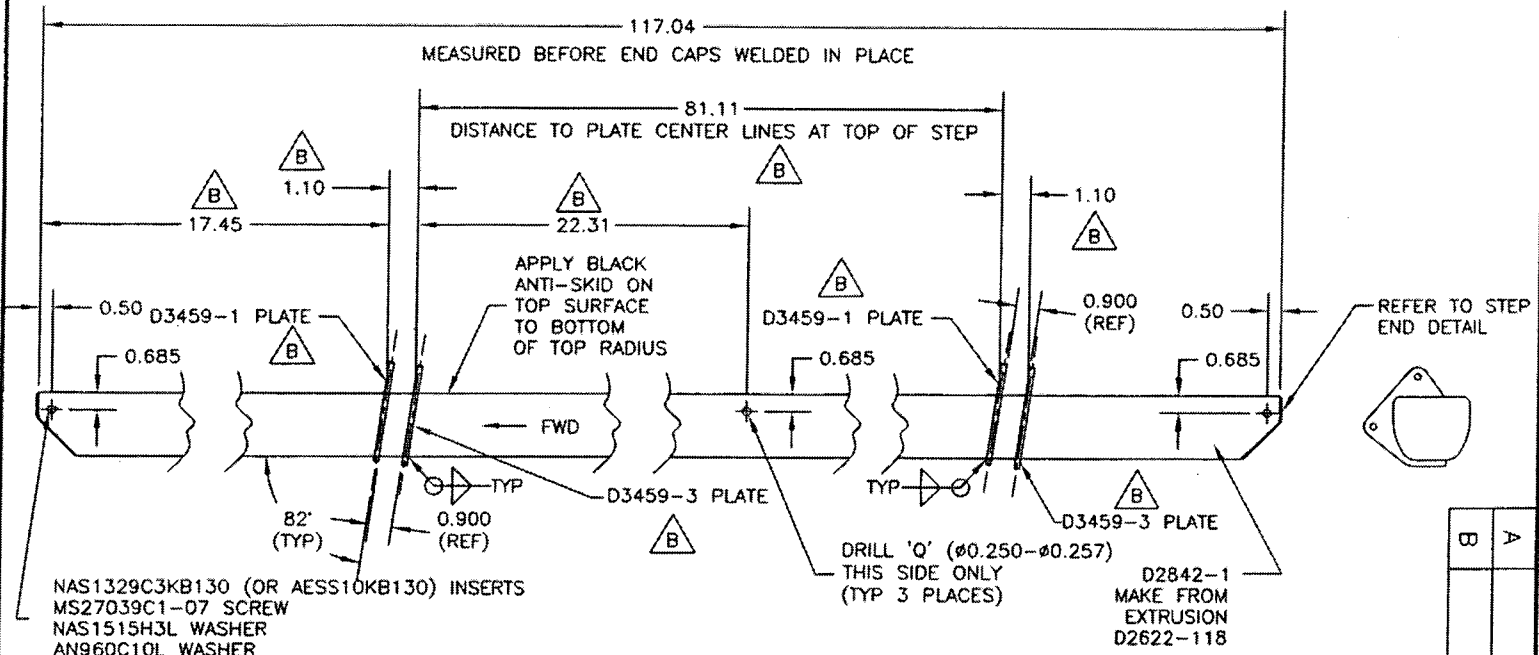
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

78685

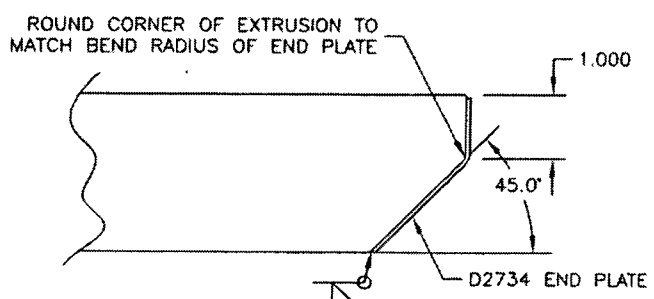


NAS1329C3KB130 (OR AESS10KB130) INSERTS
 MS27039C1-07 SCREW
 NAS1515H3L WASHER
 AN960C10L WASHER
 (TYP 3 PLACES)

D2842-041 LH STEP ASSEMBLY (SHOWN)
D2842-042 RH STEP ASSEMBLY (OPPOSITE)

D2842-041/-042 FLOAT STEP ASSEMBLY PARTS LIST

QTY - 041	QTY - 042	PART NUMBER	DESCRIPTION
X		D2842-041	LH STEP ASSEMBLY
	X	D2842-042	RH STEP ASSEMBLY
1	1	D2622-11B	EXTRUSION
2	2	D2734	END PLATE
2	2	D3459-1	PLATE
2	2	D3459-3	PLATE
3	3	NAS1329C3KB130 (OR AESS10KB130)	INSERT
3	3	MS27039C1-07	SCREW
3	3	NAS1515H3L	WASHER
3	3	AN960C10L	WASHER



D2842-041/-042 FLOAT STEP ASSEMBLY

- 1) MAKE FROM EXTRUSION D2622
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
 APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
 05-11-14

DESIGN	KE	DRAWN BY	PH	DART AEROSPACE USA, INC.	
CHECKED		APPROVED		PORT HADLOCK, WA	
DATE	05.09.23			TITLE	
	A	98.10.13		206L/407 FLOAT STEP ASSEMBLY	
	B	05.09.23		RE-DESIGN, ADD D3459-1/-3	
				NEW ISSUE	
				SCALE	
				SHEET 1 OF 1	
				REV. B	

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